Automated Clinical Practice Guidelines (ACPG) Project

Background

The Automated Clinical Practice Guidelines Project (ACPG) was initiated in response to the FY99 Defense Appropriations Bill. This bill directed the Department of Defense (DoD) to prototype, demonstrate and validate technologies, architectures, and processes to support health care services to include automation of clinical practice guidelines (CPGs)," as part of the Pacific Medical Network (PACMEDNET) Project. The bill further directed the DoD to work with the Henry Ford Health System (HFHS) of Michigan on this effort. The life of the project is now projected to extend through the third quarter of FY05 pending appropriations. Activities to date have involved project planning, producing necessary contracts and agreements, a Project Concept of Operations (CONOPS), a conceptual ACPG implementation model, and a draft ACPG Project Research and Evaluation Plan. DoD Representatives of the DoD / VA Clinical Practice Guidelines Working Group, US Army Office of the Surgeon General (OTSG) and the Clinical Business Area (CBA) participate in the ACPG efforts.

Organization

- COL Rosemary Nelson, USA, AN -- Program Manager/Chief Information Officer of the Pacific e-Health Innovation Center (P-eIC)
- LTC Paulette Williams, AN, DrPH. -- ACPG Principal Investigator
- Edward Jai, PharmD. -- ACPG Co-Investigator
- Leigh Jerome, Ph.D. -- ACPG Co-Investigator and Research Lead
- COL Dave Gilbertson - Medical Informatics Consultant to Clinical Services, OTSG
- James Davis, Ph.D. – Consultant/Statistician
- Jacqueline Shishido, RN – Clinical Lead
- Darnell Griffin – Technical Lead
- Linda Albritton -- ACPG Project Manager

Research Question

The purpose of this study is to measure the efficacy of automated practice guidelines on adherence to the guidelines, patient outcomes and healthcare costs. Each site will develop and implement an automated information system to test the hypothesis that automation of clinical practice guidelines will increase adherence to the guidelines, improve patient outcomes, and decrease costs. This study will address the following research questions:

1. At each site, is there an increase in adherence to use of the clinical practice guidelines?
2. Is there a differential impact on guideline adherence between the public and private sector implementation strategies?
3. What are the relationships between the intervention and cost or patient outcomes?
4. Do the public and private sector patient populations experience similar cost and patient outcomes?

Goals and Objectives

Objective

- A congressionally directed collaborative research project to validate and demonstrate that automating clinical practice guideline rules increases provider compliance with the rules and improves patient care and cost outcomes.

Goals

- Design and implement ACPGs encompassing rules and information to prompt providers to make the right clinical decisions at the right time.
- Plan and conduct an outcomes and process evaluation of the impact of the ACPGs and compare and contrast the different experiences and lessons learned in public and private sectors.
- Disseminate findings and recommendations.
- Foster technology transfer.

Current Status

a) Primary Accomplishments:

1. March 1999: Version 1 of ACPG Project Concept of Operations (CONOPS) developed.
2. July 1999: Memorandum of Understanding signed between P-eIC, TAMC, and HFHS.
3. October 1999: P-eIC, HFHS, and OTSG meeting in Detroit, Michigan. Outcomes: DoD reviewed current automation capabilities at HFHS. Conceptual ACPG Implementation Model developed to further guide project activities. Draft Project Research Proposal distributed by HFHS for DoD consideration.
4. October 1999: Initial project funding obtained.
5. December 1999: Version 2.0 of ACPG CONOPS written and reviewed by team.
6. February 2000: IDIQ Contract Awarded to HFHS and Kickoff meeting held in Hawaii 14-16 February. Attendees included representatives from P-eIC, HFHS, OTSG, and TAMC.
7. April 2000: Held Subject Matter Expert (SME) meeting in Dallas, TX 14 April to develop DoD functional requirements.
8. June 2000: Task Order 1 Awarded to HFHS.
9. July 2000: Initiated CHCS II Program Office SOW modifications for development of automated CPG toolset in CHCS II/Medcin application.
10. August 2000: First HFHS Quarterly Program Review (QPR) held at Detroit, MI. Functional requirements further refined by SMEs and CHCS II/Medcin developer in Chantilly, VA 23-31 September.
11. September 2000: Performance Measurement Statement of Work (SOW) prepared and submitted for bid. This SOW supports baseline data collection and risk adjustment. In Chantilly, VA, SMEs review CHCS II/Medcin developer Functional Point Analysis of all DoD functional requirements and determine final functional requirements set, 26-28 September.

b) Project Timelines:

DATE	ACTIVITY
Apr00	CPG Consensus: determine initial rules to automate and measures to report.

May00 -- Jun00	Define P-eIC and HFHS research plans and methodology
Jul00 – Sep00	Identify functional requirements and design ACPG for 1st CPG (Diabetes Mellitus) in existing DoD and HFHS healthcare systems.
Sep00 – Oct00	Define baseline activities and contract for performance measurement support, including baseline data collection and risk adjustment.
Sep00 – Nov00	Acquire MOAs with TAMC clinics.
Nov00	Consensus activities between P-eIC and HFHS for 2nd CPG.
Nov00 – Mar00	Contractor performs baseline data collect and risk adjustment activities.
Nov 00	Initiate HFHS contract action for Task Order 2 for 2nd CPG.
Dec00 – Feb01	Identify functional requirements and design ACPG for 2nd CPG in existing DoD and HFHS healthcare systems.
Feb01 – Apr01	Define baseline activities and contract for performance measurement support, including baseline data collection and risk adjustment.
Feb01 – Mar01	Update MOAs with TAMC clinics; acquire MOAs with other clinics, as necessary
Jan 01	Finalize HFHS Task Order 2 for 2nd CPG.
Mar 01	HFHS issues preliminary findings on 1st CPG
May 01	CHCS II Rel 2 implemented – DoD diabetes mellitus ACPG deployed.
Apr01 – Sep01	Contractor performs baseline data collect and risk adjustment activities for 2nd CPG.
Dec 01	P-eIC issues preliminary findings on 1st CPG.

Strategic Direction

Military Significance: Automation of CPGs will assist providers in improving patient outcomes. Increased patient outcomes should ultimately reduce MHS health care costs and justify this automation project.

Budget/Financial Status and Information

$2.0M was provided to P-eIC at the close of FY99. The FY00 Defense Appropriations Bill directed an additional $7.5M for the project.

Business Associations

Corporate Partnerships

Henry Ford Health System, Detroit, MI

Government Partnerships

Pacific e-Health Innovation Center (P-eIC)
Office of the Army Surgeon General (OTSG)
Military Health System/Program Executive Office/Clinical Business Area (CBA)
Tripler Army Medical Center (TAMC)

Other Partnerships

American Institute of Biological Sciences (AIBS), independent evaluations of research projects and proposals.

Project Security and Privacy

The DoD system changes and modifications made to support this project will comply with DoD and MHS C2 level security, Information Assurance, and emerging Common Criteria requirements and meet existing patient information privacy standards. Applicable project managers will also ensure compliance with existing and emerging security and health information privacy standards to be mandated under the Health Insurance Portability and Accountability Act (HIPAA) of 1996 and subsequent published HIPAA rules and health information privacy legislation.

Summary

Clinical Practice Guidelines (CPGs) are being used increasingly by health care organizations as a means for improving outcomes and increasing the quality of patient care. It is envisioned that automating the CPGs will increase the likelihood that providers and patients will follow appropriate rules-based care practices and patients will experience improved outcomes.